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PCT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

ILLINGWORTH-LAW, William
Lattice Intellectual Property Ltd.
23 Buckingham Gate
London SW1E 6LB
ROYAUME-UNI

| | |
|--|---|
| Date of mailing (day/month/year) 05 October 2001 (05.10.01) | IMPORTANT NOTIFICATION |
| Applicant's or agent's file reference TRAN 5244 | |
| International application No. PCT/GB00/02877 | International filing date (day/month/year) 26 July 2000 (26.07.00) |

1. The following indications appeared on record concerning:

☐ the applicant ☐ the inventor ☒ the agent ☐ the common representative

| | | |
|---|--------------------------------|--------------------|
| Name and Address ILLINGWORTH-LAW, William BG Intellectual Property Limited 23 Buckingham Gate London SW1E 6LB United Kingdom | State of Nationality | State of Residence |
| | Telephone No. 020 7963 6818 | |
| | Facsimile No. 020 7963 6816 | |
| | Teleprinter No. | |

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☒ the address ☐ the nationality ☐ the residence

| | | |
|---|--------------------------------|--------------------|
| Name and Address ILLINGWORTH-LAW, William Lattice Intellectual Property Ltd. 23 Buckingham Gate London SW1E 6LB United Kingdom | State of Nationality | State of Residence |
| | Telephone No. 020 7963 6818 | |
| | Facsimile No. 020 7963 6816 | |
| | Teleprinter No. | |

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

| | |
|---|---|
| <input checked="" type="checkbox"/> the receiving Office | <input type="checkbox"/> the designated Offices concerned |
| <input type="checkbox"/> the International Searching Authority | <input checked="" type="checkbox"/> the elected Offices concerned |
| <input checked="" type="checkbox"/> the International Preliminary Examining Authority | <input type="checkbox"/> other: |

| | |
|---|--|
| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35 | Authorized officer Dominique DELMAS Telephone No.: (41-22) 338.83.38 |
|---|--|

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

| | |
|--|--|
| Date of mailing (day/month/year) 29 March 2001 (29.03.01) | |
| International application No. PCT/GB00/02877 | Applicant's or agent's file reference TRAN 5244 |
| International filing date (day/month/year) 26 July 2000 (26.07.00) | Priority date (day/month/year) 29 July 1999 (29.07.99) |
| Applicant SUTHERLAND, Andrew et al | |

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
 30 January 2001 (30.01.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

| | |
|--|---|
| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35 | Authorized officer Lazar Joseph Panakal Telephone No.: (41-22) 338.83.38 |
|--|---|

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

ILLINGWORTH-LAW, William
BG Intellectual Property Limited
23 Buckingham Gate
London SW1E 6LB
ROYAUME-UNI

| | |
|--|---|
| Date of mailing (day/month/year) 29 March 2001 (29.03.01) | IMPORTANT NOTIFICATION |
| Applicant's or agent's file reference TRAN 5244 | |
| International application No. PCT/GB00/02877 | International filing date (day/month/year) 26 July 2000 (26.07.00) |

1. The following indications appeared on record concerning:

☐ the applicant ☐ the inventor ☒ the agent ☐ the common representative

Name and Address

ILLINGWORTH-LAW, William
BG Intellectual Property Limited
100 Thames Valley Park Drive
Reading
Berkshire RG6 1PT
United Kingdom

State of Nationality

State of Residence

Telephone No.

0118-929-3089

Facsimile No.

0118-929-3089

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☒ the address ☐ the nationality ☐ the residence

Name and Address

ILLINGWORTH-LAW, William
BG Intellectual Property Limited
23 Buckingham Gate
London SW1E 6LB
United Kingdom

State of Nationality

State of Residence

Telephone No.

020 7963 6818

Facsimile No.

020 7963 6816

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

| | |
|--|--|
| <input checked="" type="checkbox"/> the receiving Office | <input checked="" type="checkbox"/> the designated Offices concerned |
| <input checked="" type="checkbox"/> the International Searching Authority | <input type="checkbox"/> the elected Offices concerned |
| <input type="checkbox"/> the International Preliminary Examining Authority | <input type="checkbox"/> other: |

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Lazar Joseph Panakal

Telephone No.: (41-22) 338.83.38

(P)

W1

PCT/GB00/02877

5244 W0

PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

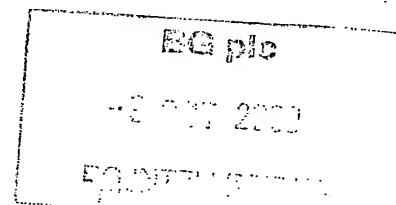
ILLINGWORTH-LAW, William
BG Intellectual Property Limited
100 Thames Valley Park Drive
Reading
Berkshire RG6 1PT
ROYAUME-UNI

| | |
|--|---|
| Date of mailing (day/month/year) 04 October 2000 (04.10.00) | |
| Applicant's or agent's file reference TRAN 5244 | IMPORTANT NOTIFICATION |
| International application No. PCT/GB00/02877 | International filing date (day/month/year) 26 July 2000 (26.07.00) |
| International publication date (day/month/year) Not yet published | Priority date (day/month/year) 29 July 1999 (29.07.99) |
| Applicant BG INTELLECTUAL PROPERTY LTD. et al | |

1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
2. This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
3. An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
4. The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

| <u>Priority date</u> | <u>Priority application No.</u> | <u>Country or regional Office or PCT receiving Office</u> | <u>Date of receipt of priority document</u> |
|-------------------------|---------------------------------|---|---|
| 29 July 1999 (29.07.99) | 9917674.5 | GB | 23 Augu 2000 (23.08.00) |

21947

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

Lazar Joseph Panakal

Telephone No. (41-22) 338.83.38

PATENT COOPERATION TREATY

5244 WO
WO 01/09545
PCT/GB00/02877
Scanned

PCT

NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

ILLINGWORTH-LAW, William
BG Intellectual Property Limited
100 Thames Valley Park Drive
Reading
Berkshire RG6 1PT
ROYAUME-UNI

LATTICE

16 FEB 2001

INTELLECTUAL
PROPERTY

| | | |
|---|---|---|
| Date of mailing (day/month/year) 08 February 2001 (08.02.01) | | |
| Applicant's or agent's file reference TRAN 5244 | | IMPORTANT NOTICE |
| International application No. PCT/GB00/02877 | International filing date (day/month/year) 26 July 2000 (26.07.00) | Priority date (day/month/year) 29 July 1999 (29.07.99) |
| Applicant BG INTELLECTUAL PROPERTY LTD. et al | | |

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:
AU,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

BR,CA,CN,EP,JP

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 08 February 2001 (08.02.01) under No. WO 01/09545

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

| | |
|---|--|
| <p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. (41-22) 740.14.35</p> | <p>Authorized officer</p> <p style="text-align: center;">J. Zahra</p> <p>Telephone No. (41-22) 338.83.38</p> |
|---|--|

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

ILLINGWORTH-LAW, W.
Lattice Intellectual Property Ltd
23 Buckingham Gate
LONDON SW1E 6LB
GRANDE BRETAGNE

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year)

15.10.2001

Applicant's or agent's file reference
TRAN 5244

IMPORTANT NOTIFICATION

International application No.
PCT/GB00/02877

International filing date (day/month/year)
26/07/2000

Priority date (day/month/year)
29/07/1999

Applicant
BG INTELLECTUAL PROPERTY LTD. et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/

 European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized officer

Haase, G

Tel. +49 89 2399-7532



REC'D 17 OCT 2001


PCT

WIPO

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

| | | |
|---|---|---|
| Applicant's or agent's file reference TRAN 5244 | | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |
| International application No. PCT/GB00/02877 | International filing date (day/month/year) 26/07/2000 | Priority date (day/month/year) 29/07/1999 |
| International Patent Classification (IPC) or national classification and IPC F16L55/18 | | |
| Applicant BG INTELLECTUAL PROPERTY LTD. et al. } LATTICE INTELLECTUAL PROPERTY LTD. | | |
| <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p> | | |
| <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input checked="" type="checkbox"/> Certain defects in the international application VIII <input checked="" type="checkbox"/> Certain observations on the international application | | |
| Date of submission of the demand 30/01/2001 | | Date of completion of this report 15.10.2001 |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | | Authorized officer Vecchio, G Telephone No. +49 89 2399 7325 |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/02877

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-7 as originally filed

Claims, No.:

1-11 as originally filed

Drawings, sheets:

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB00/02877

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application.

☒ claims Nos. 10,11.

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 10,11 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims 1-9

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB00/02877

| | | | |
|-------------------------------|------|--------|-----|
| | No: | Claims | |
| Inventive step (IS) | Yes: | Claims | |
| | No: | Claims | 1-9 |
| Industrial applicability (IA) | Yes: | Claims | 1-9 |
| | No: | Claims | |

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

Claims 10 and 11 are not formulated in terms of technical features. Therefore, they are completely unclear and not fulfil the requirements of Article 6 PCT in conjunction with Rule 6.3(a) PCT. Thus, an examination of these claims with regard to novelty, inventive step and industrial applicability is not possible

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Document EP-A-0 283 192 is considered as the closest prior art for the present application. It discloses (see particularly figure 1 and description thereof) a pipe repair device to allow operations to be carried out above ground including means (11, the drill spindle is not shown in the figure) for forming an aperture in the pipe, means (2) for fixing a fluid entry device (6), and means (8, 9) for injecting sealing fluid into the pipe via the entry device (6).

The subject-matter of claim 1 differs from the closest prior art in that it claims expressly an elongate insulated handle to allow operations to be carried out above ground and in that the defined means are attachable to said handle.

The distinguishing features solve the technical problem of the need of operative access to the pipe in form of, for example, a manhole in order to repair said pipe. Therefore, they allow a safer and less expensive repair device.

This problem is well known in the art, see for instance EP-A-0 762 020 (cf. column 1, lines 1-27), in which an elongate handle (100) to allow operations to be carried out above ground is disclosed with reference to tapping of buried pipes.

Moreover, since different tools using electrical power are installed to said handle, it is obvious that the handle has to be insulated.

Furthermore, as previously mentioned, said handle carries several tools in order to perform the different steps necessary to tap the pipe.

As the device disclosed in the closest prior art can be used in the housing of conventional under pressure drilling equipments (see column 2, lines 17-21), its different tools are attachable to a whatever suitable frame; in the specific case, this frame could be the handle of EP-A-0 762 040.

Therefore, the skilled person, having in mind the problem to be solved and the closest prior art, would immediately recognize in the apparatus shown by EP-A-0 762 040 all the features solving the aforementioned technical problem and hence he would modify accordingly the apparatus described in EP-A-0 283 192 thereby arriving at the claimed subject-matter without the exercise of inventive skills (Article 33(3) PCT).

Corresponding reasons are applied also to the subject-matter of claim 6, which claims the corresponding method of repairing a fluid pipe.

Therefore, the subject-matter of independent claims 1 and 6 does not fulfill the requirements of Article 33(3) PCT.

2. Depending claims 2-5 and 7-9 relate to minor constructional features or method steps which, insofar as not directly disclosed in the documents cited in the search report (as for claim 5, see reference sign 2 of EP-A-0 283 192), represent only obvious modifications thereof. Such features will be selected by a skilled person in accordance with circumstances because the advantages thereby achieved can be readily contemplated in advance. The combination of such features with any of claim to which they refer does not involve an inventive step in the sense of Article 33(3) PCT.
3. The industrial applicability of the claimed invention is clearly given in the description pursuant to Article 33(4) PCT.

Re Item VII

Certain defects in the international application

1. Independent claims 1 and 6 are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the chosen closest prior art being placed in the

- preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
 3. A document reflecting the prior art described on page 1, is not identified in the description (Rule 5.1(a)(ii) PCT). Furthermore, contrary to the requirements of said Rule 5.1(a)(ii) PCT, the relevant background art disclosed in documents EP-A-0 283 192 and EP-A-0 762 040 is not mentioned in the description, nor are these documents identified therein.
 4. The units of pressure employed on page 3 and 7 are not additionally expressed in terms of the units stipulated by Rule 10.1(a) PCT.

Re Item VIII

Certain observations on the international application

In order to avoid lack of clarities in claim 1 (Article 6 PCT), it should be unambiguously formulated that "the means for forming an aperture in the pipe" and "the means for fixing fluid entry device to the pipe" are attachable to the handle and that it is not meant that the pipe is attachable to the handle.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
|--|---|--|
| Applicant's or agent's file reference TRAN 5244 | FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. | |
| International application No. PCT/GB 00/ 02877 | International filing date (day/month/year) 26/07/2000 | (Earliest) Priority Date (day/month/year) 29/07/1999 |
| Applicant BG INTELLECTUAL PROPERTY LTD. et al. | | |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 2 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of Invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

GB 00/02877

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16L55/18 F16L41/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| A | US 5 659 935 A (LO-PINTO JEAN-MARIE ET AL) 26 August 1997 (1997-08-26) abstract; figures | 1-4, 6-8, 10, 11 |
| A | GB 2 222 539 A (THAMES WATER AUTHORITY) 14 March 1990 (1990-03-14) abstract; figures | 1, 3-11 |
| A | EP 0 762 040 A (GAZ DE FRANCE) 12 March 1997 (1997-03-12) abstract; figures | 1, 3, 6-8, 10, 11 |
| A | EP 0 283 192 A (BTR PLC) 21 September 1988 (1988-09-21) abstract; figures | 1, 6 |

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Information on patent family members

International Application No

/GB 00/02877

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|----------------------------|---------------------|
| US 5659935 | A | 26-08-1997 | FR 2714710 A | 07-07-1995 |
| | | | AT 160436 T | 15-12-1997 |
| | | | CA 2139254 A | 01-07-1995 |
| | | | DE 69406901 D | 02-01-1998 |
| | | | DE 69406901 T | 16-04-1998 |
| | | | DK 661492 T | 27-07-1998 |
| | | | EP 0661492 A | 05-07-1995 |
| | | | ES 2110202 T | 01-02-1998 |
| | | | GR 3025681 T | 31-03-1998 |
| GB 2222539 | A | 14-03-1990 | EP 0235917 A | 09-09-1987 |
| | | | GB 2185916 A,B | 05-08-1987 |
| | | | US 4832069 A | 23-05-1989 |
| EP 0762040 | A | 12-03-1997 | FR 2738617 A | 14-03-1997 |
| | | | AT 194693 T | 15-07-2000 |
| | | | CZ 9602667 A | 16-04-1997 |
| | | | DE 69609267 D | 17-08-2000 |
| | | | HU 9602492 A | 29-12-1997 |
| | | | SK 116096 A | 09-07-1997 |
| EP 0283192 | A | 21-09-1988 | AU 1322388 A | 22-09-1988 |